



SEQUENCE LISTING

<110> Zhang, Xianghua
Konigsberg, Paula

<120> Specific Inhibition of Allorejection

<130> A-72186/TAL/DCF (471702-00005)

<140> US 10/804,762

<141> 2004-03-19

<150> US 60/456,378

<151> 2003-03-19

<160> 32

<170> PatentIn version 3.2

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<211> 235

<212> PRT

<213> Homo sapiens

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Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
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Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
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Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
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Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
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Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
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Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
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Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
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Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
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Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
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Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
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Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His
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20          25          30

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Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
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Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
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Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
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Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
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Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
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Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
145 150 155 160

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Leu Ser Ala Arg Tyr Val
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Trp	Asn	Leu	Gly	Glu	Thr	Val	Glu	Leu	Lys	Cys	Gln	Val	Leu	Leu	Ser
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Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
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Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
115 120 125

Val Pro Val Phe Leu Pro Val His Thr Arg Gly Leu Asp Phe Ala Cys
130 135 140

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
145 150 155 160

Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His Arg Asn Arg Arg Arg
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Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser Gly Gly Lys Pro Ser
180 185 190

Leu Ser Glu Arg Tyr Val
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Glu Leu Arg Ile Phe Pro Lys Lys Met Asp Ala Glu Leu Gly Gln Lys
35 40 45

Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gln Gly Cys Ser
50 55 60

Trp Leu Phe Gln Asn Ser Ser Ser Lys Leu Pro Gln Pro Thr Phe Val
65 70 75 80

Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
85 90 95

Asn Ser Ser Lys Leu Phe Ser Ala Met Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
130 135 140

Val Leu Gln Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
145 150 155 160

Pro Ser Pro Val His Pro Thr Gly Thr Ser Gln Pro Gln Arg Pro Glu
165 170 175

Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Leu
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
210 215 220

Arg Val Cys Lys Cys Pro Ser Ile Ala Cys Leu Cys Leu Lys Leu Gln
 225 230 235 240

Gly Ser Lys Trp Tyr Glu Ser Val Ile Cys Ser Ala Leu Ala Val Ser
 245 250 255

Ile Arg Cys Asn Lys Ser Lys Ser Gly Glu Leu Pro Leu Ala Val His
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Leu Asp Ile Arg Ala Pro Cys Lys Asn Trp Glu Ile Ala Gly Ser Leu
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Ala Val Val Glu Ser Asn
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Lys Ile Thr Trp Asp Glu Lys Leu Asn Ser Ser Lys Leu Phe Ser Ala
50 55 60

Met Arg Asp Thr Asn Asn Lys Tyr Val Leu Thr Leu Asn Lys Phe Ser
65 70 75 80

Lys Glu Asn Glu Gly Tyr Tyr Phe Cys Ser Val Ile Ser Asn Ser Val
85 90 95

Met Tyr Phe Ser Ser Val Val Pro Val Leu Gln Lys Val Asn Ser Thr
100 105 110

Thr Thr Lys Pro Val Leu Arg Thr Pro Ser Pro Val His Pro Thr Gly
115 120 125

Thr Ser Gln Pro Gln Arg Pro Glu Asp Cys Arg Pro Arg Gly Ser Val
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Lys Gly Thr Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
145 150 155 160

Leu Ala Gly Ile Cys Val Ala Leu Leu Leu Ser Leu Ile Ile Thr Leu
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Ile Cys Tyr His Arg Ser Arg Lys Arg Val Cys Lys Cys Pro Arg Pro
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Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gln Gly Cys Ser
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Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Pro
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Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
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			20					25					30		

Lys	Lys	Val	Asp	Ala	Glu	Ile	Gly	Gln	Glu	Val	Lys	Leu	Thr	Cys	Glu
		35					40					45			

Val	Leu	Arg	Asp	Thr	Ser	Gln	Gly	Cys	Ser	Trp	Leu	Phe	Arg	Asn	Ser
	50					55					60				

Ser	Ser	Glu	Leu	Leu	Gln	Pro	Thr	Phe	Ile	Ile	Tyr	Val	Ser	Ser	Ser
65					70					75					80

Arg	Ser	Lys	Leu	Asn	Asp	Ile	Leu	Asp	Pro	Asn	Leu	Phe	Ser	Ala	Arg
				85					90					95	

Lys	Glu	Asn	Asn	Lys	Tyr	Ile	Leu	Thr	Leu	Ser	Lys	Phe	Ser	Thr	Lys
			100					105					110		

Asn	Gln	Gly	Tyr	Tyr	Phe	Cys	Ser	Ile	Thr	Ser	Asn	Ser	Val	Met	Tyr
		115					120					125			

Phe	Ser	Pro	Leu	Val	Pro	Val	Phe	Gln	Lys	Val	Asn	Ser	Ile	Ile	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

130

135

140

Lys Pro Val Thr Arg Ala Pro Thr Pro Val Pro Pro Pro Thr Gly Thr
145 150 155 160

Pro Arg Pro Leu Arg Pro Glu Ala Cys Arg Pro Gly Ala Ser Gly Ser
165 170 175

Val Glu Gly Met Gly Leu Gly Phe Ala Cys Asp Ile Tyr Ile Trp Ala
180 185 190

Pro Leu Ala Gly Ile Cys Ala Val Leu Leu Leu Ser Leu Val Ile Thr
195 200 205

Leu Ile Cys Cys His Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg
210 215 220

Pro Leu Val Lys Pro Arg Pro Ser Glu Lys Phe Val
225 230 235

<210> 14
<211> 1010
<212> DNA
<213> Rattus norvegicus

<400> 14
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1010

<210> 15
<211> 237
<212> PRT
<213> Cavia porcellus

<400> 15

Met Ala Pro Arg Gly Ser Ala Trp Leu Leu Leu Leu Pro Val Ala Leu
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Leu Leu Asp Ala Ala Thr Ala Gln Gly Ala Ser Gln Phe Arg Met Ser
20 25 30

Pro Arg Glu Leu Val Ala Gln Val Gly Thr Lys Val Thr Leu Arg Cys
35 40 45

Glu Val Leu Val Pro Asn Ala Pro Ala Gly Cys Ser Trp Leu Phe Gln
50 55 60

Pro Arg His Asp Ala Lys Gly Pro Thr Phe Leu Leu Tyr His Ser Ala
65 70 75 80

Ser Gly Thr Lys Leu Ala Pro Gly Leu Glu Gln Lys Arg Phe Ser Pro
85 90 95

Ser Lys Ser Ser Asn Thr Tyr Thr Leu Thr Val Asn Ser Phe Gln Lys
100 105 110

Arg Asp Glu Gly Tyr Tyr Phe Cys Ser Val Ser Gly Asn Met Met Leu
115 120 125

Tyr Phe Ser Pro Phe Val Pro Val Phe Leu Pro Ala Pro Arg Thr Thr
130 135 140

Thr Pro Pro Pro Pro Pro Thr Thr Pro Thr Pro Ser Val Gln Pro Thr
145 150 155 160

Ser Val Arg Pro Glu Thr Cys Val Val Ser Lys Gly Ala Ala Gly Ala
165 170 175

Arg Trp Leu Asp Leu Ser Cys Asp Val Tyr Ile Trp Ala Pro Leu Ala
180 185 190

Ser Thr Cys Ala Ala Leu Leu Leu Ala Leu Val Ile Thr Ile Ile Cys
195 200 205

His Arg Arg Asn Arg Gln Arg Val Cys Lys Cys Pro Arg Pro Gln Ala
210 215 220

Arg Ser Gly Gly Lys Pro Ser Pro Ser Gly Lys Leu Val
 225 230 235

<210> 16
 <211> 1330
 <212> DNA
 <213> *Cavia porcellus*

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 aaaaaaaaaa 1330

<210> 17
 <211> 242
 <212> PRT
 <213> *Bos taurus*

<400> 17

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 Thr Gln Lys Glu Thr Arg Leu Gly Glu Lys Val Glu Leu Gln Cys Glu
 35 40 45
 Leu Leu Gln Ser Gly Met Ala Thr Gly Cys Ser Trp Leu Arg His Ile
 50 55 60
 Pro Gly Asp Asp Pro Arg Pro Thr Phe Leu Met Tyr Leu Ser Ala Gln
 65 70 75 80
 Arg Val Lys Leu Ala Glu Gly Leu Asp Pro Arg His Ile Ser Gly Ala
 85 90 95
 Lys Val Ser Gly Thr Lys Phe Gln Leu Thr Leu Ser Ser Phe Leu Gln
 100 105 110
 Glu Asp Gln Gly Tyr Tyr Phe Cys Ser Val Val Ser Asn Ser Ile Leu
 115 120 125
 Tyr Phe Ser Asn Phe Val Pro Val Phe Leu Pro Ala Lys Pro Ala Thr
 130 135 140
 Thr Pro Ala Met Arg Pro Ser Ser Ala Ala Pro Thr Ser Ala Pro Gln
 145 150 155 160
 Thr Arg Ser Val Ser Pro Arg Ser Glu Val Cys Arg Thr Ser Ala Gly
 165 170 175
 Ser Ala Val Asp Thr Ser Arg Leu Asp Phe Ala Cys Asn Ile Tyr Ile
 180 185 190
 Trp Ala Pro Leu Val Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
 195 200 205
 Ile Thr Gly Ile Cys Tyr Arg Arg Asn Arg Arg Arg Val Cys Lys Cys
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 Pro Arg Pro Val Val Arg Gln Gly Gly Lys Pro Asn Leu Ser Glu Lys
 225 230 235 240
 Tyr Val

<211> 2001
<212> DNA
<213> Bos taurus

<400> 18

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cacccagagc ctcgatgagg taatgaaata ggacaagaaa acttgacaga gttctgtgat	1320
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<210> 19
<211> 236
<212> PRT
<213> Sus scrofa

<400> 19

Met Ala Ser Leu Val Thr Ala Leu Leu Leu Pro Leu Val Leu Gln Leu
1 5 10 15

His Pro Ala Lys Val Leu Gly Ser Ser Leu Phe Arg Thr Ser Pro Glu
20 25 30

Met Val Gln Ala Ser Leu Gly Glu Thr Val Lys Leu Arg Cys Glu Val
35 40 45

Met His Ser Asn Thr Leu Thr Ser Cys Ser Trp Leu Tyr Gln Lys Pro
50 55 60

Gly Ala Ala Ser Lys Pro Ile Phe Leu Met Tyr Leu Ser Lys Thr Arg
65 70 75 80

Asn Lys Thr Ala Glu Gly Leu Asp Thr Arg Tyr Ile Ser Gly Tyr Lys
85 90 95

Ala Asn Asp Asn Phe Tyr Leu Ile Leu His Arg Phe Arg Glu Glu Asp
100 105 110

Gln Gly Tyr Tyr Phe Cys Ser Phe Leu Ser Asn Ser Val Leu Tyr Phe
115 120 125

Ser Asn Phe Met Ser Val Phe Leu Pro Ala Lys Pro Thr Lys Thr Pro
130 135 140

Thr Thr Pro Pro Pro Lys Arg Thr Pro Thr Lys Ala Ser His Ala Val
145 150 155 160

Ser Val Ala Pro Glu Val Cys Arg Pro Ser Gly Asn Ala Asp Pro Arg
165 170 175

Lys Leu Asp Leu Ala Cys Asp Leu Tyr Asn Trp Ala Pro Leu Val Gly
180 185 190

Thr Ser Gly Ile Leu Leu Leu Ser Leu Val Ile Thr Ile Ile Cys His

195

200

205

Arg Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Val Val Arg
 210 215 220

Gln Gly Gly Lys Ala Ser Pro Ser Glu Arg Phe Ile
 225 230 235

<210> 20
 <211> 2179
 <212> DNA
 <213> Sus scrofa

<400> 20
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 ccaggcttcg agcttccagc ggagccgcgc cgcggggagc gcgccatggc ctcgctgggtg 180
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<210> 21
 <211> 239
 <212> PRT
 <213> Felis catus

<400> 21

Met	Ala	Ser	Pro	Val	Thr	Ala	Gln	Leu	Leu	Pro	Leu	Ala	Leu	Leu	Leu
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His	Ala	Ala	Ala	Ala	Ala	Gly	Pro	Ser	Pro	Phe	Arg	Leu	Ser	Pro	Val
			20					25					30		

Arg	Val	Glu	Gly	Arg	Leu	Gly	Gln	Arg	Val	Glu	Leu	Gln	Cys	Glu	Val
		35				40						45			

Leu	Leu	Ser	Ser	Ala	Ala	Pro	Gly	Cys	Thr	Trp	Leu	Phe	Gln	Lys	Asn
	50					55					60				

Glu	Pro	Ala	Ala	Arg	Pro	Ile	Phe	Leu	Ala	Tyr	Leu	Ser	Arg	Ser	Arg
65					70					75					80

Thr	Lys	Leu	Ala	Glu	Glu	Leu	Asp	Pro	Lys	Gln	Ile	Ser	Gly	Gln	Arg
			85						90					95	

Ile	Gln	Asp	Thr	Leu	Tyr	Ser	Leu	Thr	Leu	His	Arg	Phe	Arg	Lys	Glu
			100					105					110		

Glu	Glu	Gly	Tyr	Tyr	Phe	Cys	Ser	Val	Val	Ser	Asn	Ser	Val	Leu	Tyr
		115					120					125			

Phe Ser Ala Phe Val Pro Val Phe Leu Pro Val Lys Pro Thr Thr Thr
130 135 140

Pro Ala Pro Arg Pro Pro Thr Gln Ala Pro Ile Thr Thr Ser Gln Arg
145 150 155 160

Val Ser Leu Arg Pro Gly Thr Cys Gln Pro Ser Ala Gly Ser Thr Val
165 170 175

Glu Ala Ser Gly Leu Asp Leu Ser Cys Asp Ile Tyr Ile Trp Ala Pro
180 185 190

Leu Ala Gly Thr Cys Ala Phe Leu Leu Leu Ser Leu Val Ile Thr Val
195 200 205

Ile Cys Asn His Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro
210 215 220

Val Val Arg Ala Gly Gly Lys Pro Ser Pro Ser Glu Arg Tyr Val
225 230 235

<210> 22
<211> 785
<212> DNA
<213> Felis catus

<400> 22
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acagt 785

<210> 23

<211> 235
<212> PRT
<213> Sigmodon hispidus

<400> 23

Met Ala Pro Arg Val Thr Arg Phe Leu Cys Leu Thr Leu Leu Leu Glu
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Phe Ile Ala Glu Leu Gly Gly Ser Lys Asp Phe Glu Met Ser Pro Lys
20 25 30

Lys Val Val Ala His Leu Gly Lys Glu Val Arg Leu Thr Cys Glu Val
35 40 45

Trp Val Ser Thr Ser Gln Gly Cys Ser Trp Leu Phe Leu Glu His Gly
50 55 60

Ser Gly Val Lys Pro Thr Phe Leu Ile Tyr Leu Ser Gly Ser Arg Asn
65 70 75 80

Glu Arg Asn Asn Lys Ile Pro Ser Thr Lys Leu Ser Gly Lys Lys Glu
85 90 95

Asp Lys Lys Tyr Thr Leu Thr Leu Asn Asn Phe Ala Lys Glu Asp Glu
100 105 110

Gly Tyr Tyr Phe Cys Ser Val Thr Ser Asn Ser Val Val Tyr Phe Ser
115 120 125

Pro Leu Val Ser Val Phe Leu Pro Glu Lys Pro Thr Thr Pro Val Pro
130 135 140

Lys Pro Pro Thr Ser Val Pro Thr Thr Ala Ile Ser Arg Ser Leu Arg
145 150 155 160

Pro Glu Ala Cys Arg Pro Gly Ala Gly Thr Ser Val Glu Lys Lys Gly
165 170 175

Trp Asp Phe Asp Cys Asp Ile Ile Ile Leu Ala Pro Leu Ala Gly Leu
180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Thr Thr Leu Ile Cys Cys His
195 200 205

Arg Asn Arg Lys Arg Val Cys Lys Cys Pro Arg Pro Val Val Arg Gln
210 215 220

Gly Gly Lys Pro Ser Pro Ser Gly Lys Leu Val
225 230 235

<210> 24
 <211> 1229
 <212> DNA
 <213> Sigmodon hispidus

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 ttcactttga cacaaaacaa gaccacataa tgtccacggg ataccataag ggcaggagct 960
 gttgctgcgt acatagcatg tgggggaagt acagaacagc tgtctgggtt ctcaggatca 1020
 gtggatgata agcaccact tgatgatcta aatgccctgt ctgccatta tatagaagag 1080
 gttgaagggtc agaaatgggg tgggcaggat ctgtgcacca ggagagaacc caagctgacg 1140
 aaatcctcac tggatggctc agggaaactg cctctatatc ctgagttctc tttattcagg 1200
 cctgtgcctg gtagtgtgta ggctgagta 1229

<210> 25
 <211> 235
 <212> PRT
 <213> Saimiri sciureus

<400> 25

Met Ala Ser Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Ser Arg Phe Arg Val Ser Pro Leu Asp Arg Thr
 20 25 30

Trp Asn Leu Gly Asp Lys Val Glu Leu Lys Cys Glu Val Leu Leu Ser
 35 40 45

Asn Pro Ser Ser Gly Cys Ser Trp Leu Phe Gln Lys Arg Gly Ala Ala
 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Ile Ser Gln Thr Lys Pro Lys Val
 65 70 75 80

Ala Asp Gly Leu Asp Ala Gln Arg Phe Ser Gly Lys Lys Met Gly Asp
 85 90 95

Ser Phe Ile Leu Thr Leu Arg Asp Phe Arg Glu Glu Asp Gln Gly Phe
 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser Pro Phe
 115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Glu Pro Thr Thr Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Gln Ala Cys Arg Pro Pro Ala Gly Gly Ala Val Asp Thr Arg Gly
 165 170 175

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Val Pro Leu Ala Gly Thr
 180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Val Tyr Cys Asn His
 195 200 205

Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Ala Val Lys Ser
 210 215 220

Gly Gly Lys Pro Ser Pro Ser Glu Arg Tyr Val
 225 230 235

<210> 26
 <211> 708
 <212> DNA
 <213> Saimiri sciureus

<400> 26
 atggcctctc ccgtgaccgc cttgctcctg ccgctggccc tgctgctcca cgctgccagg 60
 ccgagccggt tccgggtgtc gccgctggat cggacctgga acttgggcga caaggtggag 120
 ctgaagtgcg aggtgctgct gtccaacccg tcctcgggct gctcgtggct cttccagaag 180
 cgcggcgctg ccgccagccc caccctcctc ctgtacatct cccaaaccaa gcccaagggtg 240

gccgatgggc tggacgcca gcgcttctcc ggcaagaaga tgggggacag cttcattctc 300
 accctgcgcg acttccgcga ggaggaccag ggcttctatt tctgctcggc cctgagcaac 360
 tccatcatgt acttcagccc cttcgtgccg gtcttcctgc cagcgaagcc caccacgacg 420
 ccagcggcgc gaccacccac accggagccc accaccgcgt cgcagcccct gtccctgcgt 480
 ccacaggctt gccggcccc ggcggggggc gcagtggaca cgaggggggt ggacttcgcc 540
 tgtgatattc acatctgggt gcccttggcc gggacctgcg gggtccttct cctgtcactg 600
 gtcacaccg tttattgcaa tcacaggaac cgacgacgtg tttgcaaagc tccccggcct 660
 gcggtcaagt ctggaggcaa gccagccct tcggagagat acgtctaa 708

<210> 27
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 27

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr
 20 25 30

Trp Asn Leu Gly Glu Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
 35 40 45

Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
 65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
 85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
 115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
165 170 175

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His
195 200 205

Arg Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser
210 215 220

Gly Asp Lys Pro Ser Leu Ser Ala Arg Tyr Val
225 230 235

<210> 28
<211> 708
<212> DNA
<213> Homo sapiens

<400> 28
atggccttac cagtgaccgc cttgctcctg ccgctggcct tgctgctcca cgccgccagg 60
ccgagccagt tccgggtgtc gccgctggat cggacctgga acctggggcga gacagtggag 120
ctgaagtgcc aggtgctgct gtccaacccg acgtcgggct gctcgtggct cttccagccg 180
cgcggcgcgcg ccgccagtcc cacccttcctc ctatacctct cccaaaacaa gcccaaggcg 240
gccgagggggc tggacaccca gcggttctcg ggcaagaggt tgggggacac cttcgtcctc 300
accctgagcg acttccgcgc agagaacgag ggctactatt tctgctcggc cctgagcaac 360
tccatcatgt acttcagcca cttcgtgccg gtcttcctgc cagcgaagcc caccacgacg 420
ccagcgcgcg gaccaccaac accggcgccc accatcgcg tgcagcccct gtccctgcgc 480
ccagaggcgt gccggccagc ggcggggggc gcagtgcaca cgaggggggct ggacttcgcc 540
tgtgatatct acatctgggc gcccttggcc gggacttggt gggtccttct cctgtcactg 600
gttatcacc tttactgcaa ccacaggaac cgaagacgtg tttgcaaata tccccggcct 660
gtgggtcaaat cgggagacaa gcccgacctt tcggcgagat acgtctaa 708

<210> 29
<211> 310
<212> PRT
<213> Mus musculus

<400> 29

Met Ala Ser Pro Leu Thr Arg Phe Leu Ser Leu Asn Leu Leu Leu Leu
1 5 10 15

Gly Glu Ser Ile Ile Leu Gly Ser Gly Glu Ala Lys Pro Gly Ala Pro
20 25 30

Glu Leu Arg Ile Phe Pro Lys Lys Met Asp Ala Glu Leu Gly Gly Lys
35 40 45

Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gly Gly Cys Ser
50 55 60

Trp Leu Phe Gly Asn Ser Ser Ser Lys Leu Pro Gly Pro Thr Phe Val
65 70 75 80

Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
85 90 95

Asn Ser Ser Lys Leu Phe Ser Ala Met Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
130 135 140

Val Leu Gly Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
145 150 155 160

Pro Ser Pro Val His Pro Thr Gly Thr Ser Gly Pro Gly Arg Pro Glu
165 170 175

Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Leu
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
210 215 220

Arg Val Cys Lys Cys Pro Ser Ile Ala Cys Leu Cys Leu Lys Leu Gly
225 230 235 240

Gly Ser Lys Trp Tyr Glu Ser Val Ile Cys Ser Ala Leu Ala Val Ser
245 250 255

Ile Arg Cys Asn Lys Ser Lys Ser Gly Glu Leu Pro Leu Ala Val His
260 265 270

Leu Asp Ile Arg Ala Pro Cys Lys Asn Trp Glu Ile Ala Gly Ser Leu
275 280 285

Val Glu Arg Tyr Gly Lys Ser Gly Lys His Ser Pro Leu Ser Leu Lys
 290 295 300

Ala Val Val Glu Ser Asn
 305 310

<210> 30
 <211> 933
 <212> DNA
 <213> Mus musculus

<400> 30
 atggcctcac cggtgacccg ctttctgtcg ctgaacctgc tgctgctggg tgagtcgatt 60
 atcctgggga gtggagaagc taagccacag gcacccgaac tccgaatctt tccaaagaaa 120
 atggacgccg aacttgggtca gaagggtggac ctggtatgtg aagtgttggg gtccgtttcg 180
 caaggatgct cttggctctt ccagaactcc agctccaaac tccccagcc caccttcggt 240
 gtctatatgg cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaag 300
 ctgttttctg ccatgagggg cacgaataat aagtacgttc tcacctgaa caagttcagc 360
 aaggaaaacg aaggctacta tttctgtcga gtcacagca actcgggtgat gtacttcagt 420
 tctgtcgtgc cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact 480
 cctcacctg tgcaccctac cgggacatct cagccccaga gaccagaaga ttgtcggccc 540
 cgtggctcag tgaaggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc 600
 ttggccggaa tctgcgtggc ctttctgtcg tccttgatca tctctctcat ctgctaccac 660
 aggagccgaa agcgtgtttg caaatgtccc agtatagcat gcttgtgcct caaactgcaa 720
 ggaagcaagt ggtatgaatc tgtgatctgc tcagctctgg ctgtgagcat cagatgtaac 780
 aaatcaaagt caggagaact gccttttagcg gtgcacctgg acatcagagc cccttgtaag 840
 aactgggaaa ttgctggcag tctagtggag cggtagcgta aatctggaaa acactcccct 900
 ctgtcactga aggctgtagt agaatccaat taa 933

<210> 31
 <211> 247
 <212> PRT
 <213> Mus musculus

<400> 31

Met Ala Ser Pro Leu Thr Arg Phe Leu Ser Leu Asn Leu Leu Leu Met
 1 5 10 15

Gly Glu Ser Ile Ile Leu Gly Ser Gly Glu Ala Lys Pro Gln Ala Pro
 20 25 30

Glu Leu Arg Ile Phe Pro Lys Lys Met Asp Ala Glu Leu Gly Gln Lys
 35 40 45

Val Asp Leu Val Cys Glu Val Leu Gly Ser Val Ser Gln Gly Cys Ser
50 55 60

Trp Leu Phe Gln Asn Ser Ser Ser Lys Leu Pro Gln Pro Thr Phe Val
65 70 75 80

Val Tyr Met Ala Ser Ser His Asn Lys Ile Thr Trp Asp Glu Lys Leu
85 90 95

Asn Ser Ser Lys Leu Phe Ser Ala Val Arg Asp Thr Asn Asn Lys Tyr
100 105 110

Val Leu Thr Leu Asn Lys Phe Ser Lys Glu Asn Glu Gly Tyr Tyr Phe
115 120 125

Cys Ser Val Ile Ser Asn Ser Val Met Tyr Phe Ser Ser Val Val Pro
130 135 140

Val Leu Gln Lys Val Asn Ser Thr Thr Thr Lys Pro Val Leu Arg Thr
145 150 155 160

Pro Ser Pro Val His Pro Thr Gly Thr Ser Gln Pro Gln Arg Pro Glu
165 170 175

Asp Cys Arg Pro Arg Gly Ser Val Lys Gly Thr Gly Leu Asp Phe Ala
180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Ile Cys Val Ala Pro
195 200 205

Leu Leu Ser Leu Ile Ile Thr Leu Ile Cys Tyr His Arg Ser Arg Lys
210 215 220

Arg Val Cys Lys Cys Pro Arg Pro Leu Val Arg Gln Glu Gly Lys Pro
225 230 235 240

Arg Pro Ser Glu Lys Ile Val
245

<210> 32
<211> 197
<212> PRT
<213> Homo sapiens

<400> 32

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Ser Gln Phe Arg Val Ser Pro Leu Asp Arg Thr

20

25

30

Trp Asn Leu Gly Trp Thr Val Glu Leu Lys Cys Gln Val Leu Leu Ser
 35 40 45

Asn Pro Thr Ser Gly Cys Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala
 50 55 60

Ala Ser Pro Thr Phe Leu Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala
 65 70 75 80

Ala Glu Gly Leu Asp Thr Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp
 85 90 95

Thr Phe Val Leu Thr Leu Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr
 100 105 110

Tyr Phe Cys Ser Ala Leu Ser Asn Ser Ile Met Tyr Phe Ser His Phe
 115 120 125

Val Pro Val Phe Leu Pro Ala Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Gly Asn Arg Arg Arg
 165 170 175

Val Cys Lys Cys Pro Arg Pro Val Val Lys Ser Gly Asp Lys Pro Ser
 180 185 190

Leu Ala Arg Tyr Val
 195